

BASIS FOR THE AMENDMENT

Claims 1-24 are active in the present application. Claim 1 has been amended to state that a monomer mixture comprising the monomers of the polyadduct and the polymer are emulsified with water. Support for the amendment is found in the examples on pages 18 and 19 of the specification. Claims 22-24 are new claims. Support for the new claims is found in the examples. The claims have been further amended for matters of form not effecting the scope of the claimed subject matter.

No new matter is added.

REQUEST FOR RECONSIDERATION

Applicants disclose hybrid dispersions having a small particle diameter and methods of preparing hybrid dispersions that are more efficient than prior art methods and which provide dispersions having a small particle diameter. Applicants disclose that difficulties may arise when a dispersion that comprises both a polyadduct and a polymer is prepared. Numerous disadvantages such as hydrophilicity and high cost are a problem in prior art methods that may include first preparing a polyadduct dispersion then dispersing monomer units within the polyadduct dispersion which are subsequently polymerized to form a polymer (see page 1, lines 20-33). Applicants have described a method that includes first forming an emulsion of the constituent monomer units of the polyadduct and the polymer in water before any polymerization takes place.

By forming an emulsion of a monomer mixture that comprises both the monomers of the polyadduct and the monomers of the polymer, it is possible to prepare a hybrid dispersion that contains both the polyadduct and the polymer and which has a small particle size. Of course, a substantial advantage of the claimed process is that it is only necessary to prepare a single dispersion (i.e., an emulsion of the monomer mixture) instead of having to form a first emulsion of, for example, the monomers of the polyadduct and then forming a second dispersion of the monomers of the polyadduct with the monomers of the polymer.

In the present case, the Office rejected the claims in view of the disclosure of Bendix (U.S. 2003/0143414). Bendix discloses the following preparatory procedure for Examples 1-3:

For carrying out Examples 1 to 3, a mixture of monomers (A) was dispersed in an aqueous dispersion of a blocked polyisocyanate in each case. (See paragraph [0116] of Bendix).

Thus, Bendix discloses a method that includes forming an emulsion by adding a monomer (A) to an aqueous dispersion of a polyisocyanate. Applicants submit that of

paragraph [0116] in Bendix describes a process and/or dispersion that is different from the process and/or hybrid dispersions of the present claims. The presently claimed invention requires that a monomer mixture is mixed with water to form an emulsion. In contrast to the claimed invention, Bendix forms an emulsion by mixing a monomer with a polyadduct that is already present as a dispersion in water. Bendix cannot anticipate the presently claimed subject matter because the cited disclosure of Bendix does not describe a process that includes mixing a monomer mixture with water and emulsifying the monomer water mixture.

Applicants submit that the hybrid dispersion of the present claims is different from the dispersions of Bendix as proven by, for example, particle diameter. The presently claimed invention is able to provide a hybrid dispersion having small particle diameter (see new dependent Claim 22 wherein the particle diameter is limited to from 92 to 113 nm). The particle diameter of the dispersions of Bendix is provided in Table 1 on page 10 of the U.S. publication. Particle diameters of from 134-149 are disclosed. Applicants draw the Office's attention to MPEP § 2144.04(II)(B) "Omission of an Element with Retention of the Elements Function Is an Indicia of Unobviousness".

Thus, the process of Bendix is different from the process recited in the present claims because Bendix describes a two step process of forming dispersions or emulsions (i.e., first forming the blocked isocyanate/water dispersion and then forming a further dispersion by adding a monomer mixture to the blocked polyisocyanate/water dispersion). The product of Bendix (i.e, the dispersion) is different as evidenced by the larger particle size.

Applicants submit the presently claimed invention is novel and not obvious in view of
Bendix and respectfully requests withdrawal of the rejections.

Respectfully submitted,

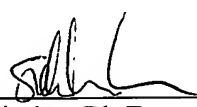
OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

NFO:SUK\la



Stefan U. Koschmieder, Ph.D.
Registration No. 50,238